

Flowsensor Installation Tips

Each flowsensor installation will be slightly different because of the many differences between vehicles and engines, but certain basic steps must be followed. The fuel flowsensor should be installed as near as possible to the fuel pump, but **after** any branch off return lines to the fuel tank. This is important to prevent any possible vapor lock conditions and to assure accurate fuel readings. **Never place the flowsensor on top of the engine or high in the engine compartment.**

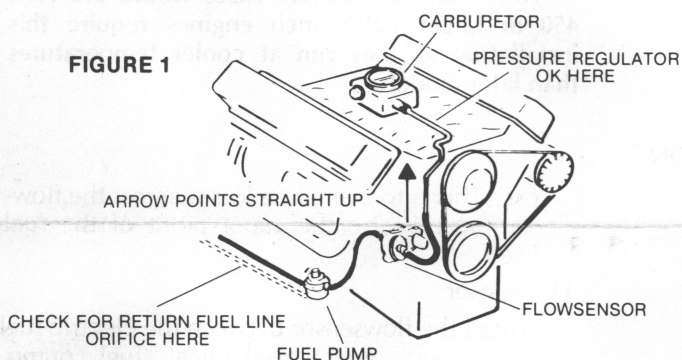


FIGURE 1

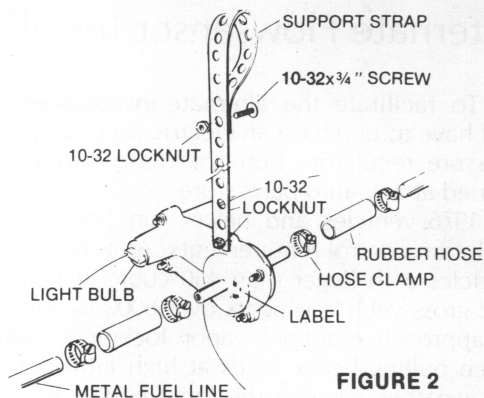


FIGURE 2

Notice that the inlet port [marked "IN"] of the flowsensor is labelled and marked "UP" with an arrow. The arrow must always point straight up and the flowsensor must be mounted in a horizontal position.

Additional support to keep the flowsensor positioned can be achieved by using the flowsensor mounting strap (Figure 2). Fasten the strap to the flowsensor with a 10-32 locknut and wrap the other end around an existing engine bracket. Fasten the wrapped end with the 10-32 x 3/4" screw and remaining locknut.

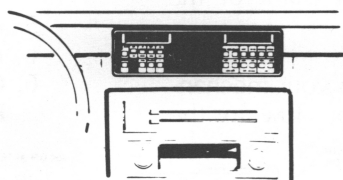
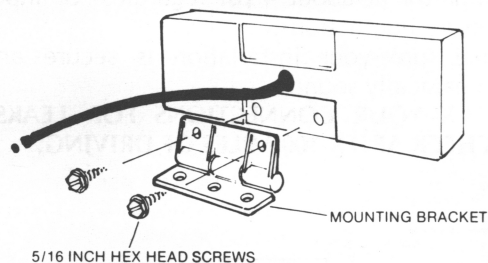
Installation Checklist **IMPORTANT! PLEASE READ CAREFULLY!**

- Do - Mount flowsensor in *cool* location *low* in the engine compartment. (by fuel pump if possible)
- Do - Keep any fuel pressure regulator or fuel filter *between* flowsensor and carburetor.
- Do - Make sure fuel return lines are *between* flowsensor and fuel pump.
- Do - Keep arrow on flowsensor pointing UP!
- Do - Make sure "IN" side of flowsensor is connected to fuel line *coming from* the fuel pump.
- Don't - Mount flowsensor on top of Engine!!!!
- Don't - Mount flowsensor near hot engine parts or radiator hoses.
- Don't - Route wiring near ignition coil, distributor or spark plug wiring!

- Don't - Mount flowsensor on vertical section of fuel line!!
- Don't - Mount flowsensor between gas tank and fuel pump! (installations with optional electric fuel pump excepted)
- Don't - Let fuel line hose dip downwards on "out" side of flowsensor.
- Remember - Install the return fuel line orifice in *any* return line *at or after* the fuel pump. Look *carefully* for any return line. They are easy to miss!
- Remember - An improper installation will cause excessive errors in your MPG readings! Take time to do the job *right*!

Mounting Your Prince On-Board Computer

Mounting your Prince On-Board Computer will vary from vehicle to vehicle. Keep the following points in mind.



- display is visible at a glance as you drive.
- keys are within easy reach.
- readout module does not interfere with your legs or knees.
- readout module is out of direct sunlight that may cause excessive heat and visibility problems.
- readout module does not obstruct your driving vision.

Alternate Flowsensor Installation

To facilitate the alternate **installations**, you will have to purchase an electric fuel pump and a pressure regulator. Both of these can be purchased at any auto parts store.

1976 vehicles and newer run hotter due to pollution control requirements. As a result, newer vehicles with larger than 450 cubic inch engines and gross vehicle weights over 6000 pounds tend to approach marginal vapor locking conditions when pulling heavy loads at high altitudes or in hot weather. Due to the large bowl capacity of the carburetors on these engines, drivers rarely notice any performance change when this marginal condition exists. Since our flowsensor is a volumetric device, it counts everything passing

through it, including vapor. This can give a high fuel used reading and inaccurate calculations. Also the flowsensor itself can be a cause of a vapor lock condition. Thus, the reason for the alternate installation is to overcome this marginal condition and keep solid fuel passing through the sensor, and obtain accurate fuel used readings to the computer. As a side benefit it also reduces the chance of vapor lock under the above driving conditions.

Note that only in rare cases would pre-1976 450 or larger cubic inch engines require this installation as they run at cooler temperatures than later models.

460 FORD ALTERNATE FLOWSENSOR INSTALLATION

Pressure Regulator

1. Install pressure regulator between your mechanical fuel pump and carburetor. The pressure regulator protects against flooding by keeping pressure to the carburetor at about 4 psi regardless of input pressure fluctuations.

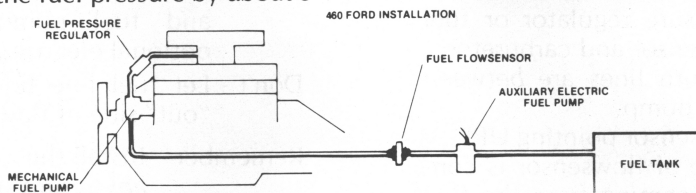
Electric Fuel Pump

2. Install the auxiliary electric fuel pump as close to the gas tank as possible. If you have dual tanks, position the electric pump between your fuel tank selector switch and the mechanical fuel pump. The electric fuel pump is used to increase the fuel pressure by about 5

psi. This is to overcome losses across the flowsensor and raise the vapor point of the fuel itself.

Flowsensor

3. Install the flowsensor between the electric fuel pump and your mechanical fuel pump. **Remember the arrow on the flowsensor must point up.**
4. Make sure your installation is secure and mechanically sound.
5. **CHECK YOUR CONNECTIONS FOR LEAKS. RECHECK AFTER 100 MILES OF DRIVING.**



454 GM ALTERNATE FLOWSENSOR INSTALLATION

Fuel line orifice

1. Install the fuel line orifice in your return fuel line, if you have one. See "Fuel Pump" section.

Electric fuel pump

2. Install the auxiliary electric fuel pump as close as possible to your fuel tank. If you have dual tanks, position the electric fuel pump between your fuel tank selector switch and your mechanical fuel pump. The electric fuel pump is used to increase the fuel pressure by about 5 psi. This is to overcome losses across the flowsensor and raise the vapor point of the fuel itself.

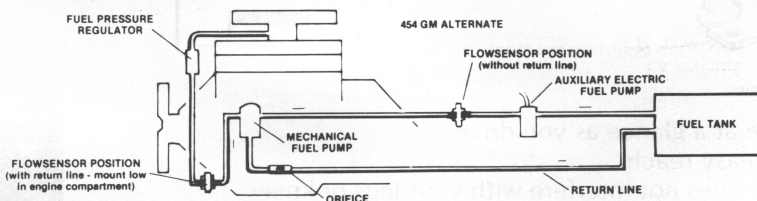
Flowsensor

3. Install your flowsensor between your mechanical fuel pump and carburetor, low in the

engine compartment, if you have a return fuel line. If you do not have a return fuel line, place your flowsensor between the electric fuel pump and your mechanical fuel pump. Remember the arrow on the flowsensor must point up.

Pressure regulator

4. Install the pressure regulator as shown in the drawing. The fuel pressure regulator protects against flooding by keeping the pressure to the carburetor at about 4 psi regardless of input pressure fluctuations.
5. Make sure your installation is secure and mechanically sound.
6. **CHECK YOUR CONNECTIONS FOR LEAKS. RECHECK AFTER 100 MILES OF DRIVING.**



crown products group

MARKETING DIVISION 5135 Golf Road Skokie, Illinois 60077 312/674-0827

MANUFACTURING & SERVICES 35 Madison Holland, Michigan 49423 616/392-5165